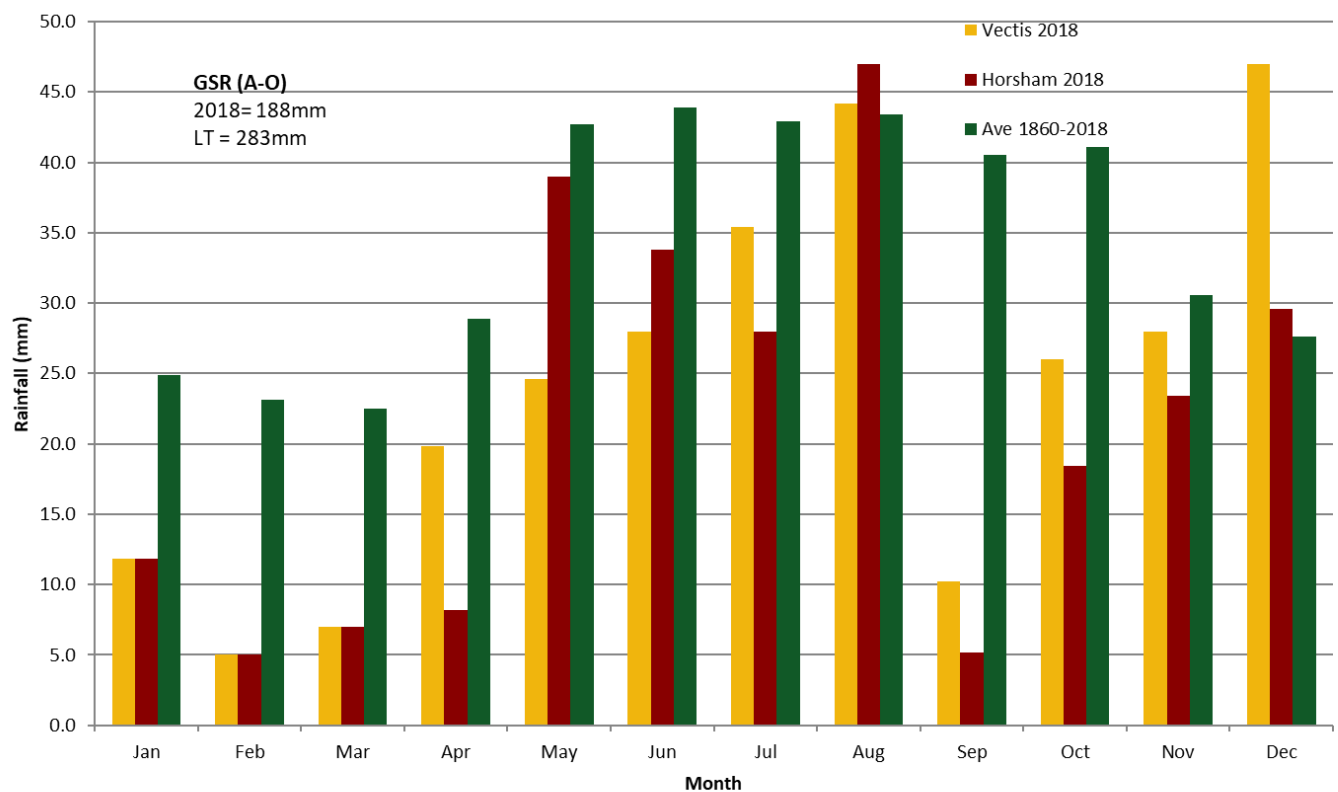


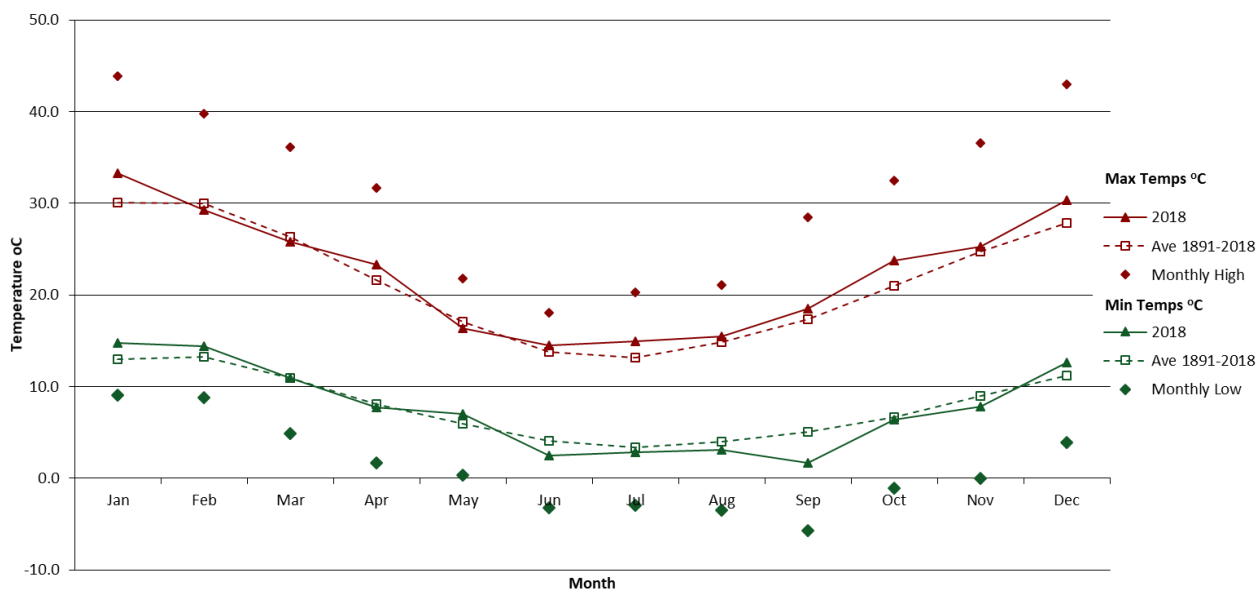
**HORSHAM, Victoria**  
**Medium Rainfall Zone, Wimmera**  
GPS -36.71461, 142.11275

## Seasonal Snapshot

- Trials were sown into a dry seed bed and emerged on limited rainfall events in May. Establishment was variable due to the dry conditions and the presence of mice. There was also some evidence of Group C herbicide damage in some trials. Monthly rainfall remained below average throughout the entire cropping season, with extremely low rainfall recorded in September (Figure 1). The first significant drought stress symptoms were observed in all crops during August. Growing season rainfall was among the lowest observed in the 18 years of conducting trials in the Wimmera region. There were some small late rainfall events observed in October ensuring that most crops were harvestable, but grain yield generally only ranged from 0 to 1.0 t/ha. Due to the low rainfall and moderate temperatures (Figure 2), growth throughout the season was slow and biomass production was limited. During the reproductive phase there were generally cool conditions with many frosts that affected pod set for all crops. There were no major heat events.



**Figure 1.** Average monthly rainfall at the Horsham trial site (Vectis, MRZ, Vic) in 2018 compared with the actual and long term average for Horsham.



**Figure 2.** Average monthly maximum and minimum temperatures and absolute maximum or minimum at the Horsham trial site (MRZ, Vic) in 2018 compared with the long term average of Horsham.

# Soil Characterisation

HORSHAM

Black Cracking Clay

Depth (cm)	NH <sub>4</sub> -N	NO <sub>3</sub> -N	P	K	S	Cu	Fe	Mn	Zn	B	EC (dS/m)
(mg/kg)											
0-10	9.5	17.2	15	939	20	1.1	33	19.5	0.9	2.9	0.32
10-20	4.6	4.2	7	713	11	1.2	40	5.1	0.3	3.5	0.22
20-40	3.9	2.4	6	610	10	1.2	45	4.8	0.2	4.3	0.27
40-60	2.7	2.8	5	619	13	1.4	45	3.0	0.2	10.9	0.48
60-100	2.5	3.4	6	654	30	1.5	42	3.5	0.3	20.9	0.78

Depth (cm)	Exc Al	Exc Ca	Exc Mg (meq/100g)	Exc K	Exc Na	OC (%)	pH (CaCl <sub>2</sub> )	pH (H <sub>2</sub> O)	BD g/cm <sup>3</sup>	Water grav (%)	Water Total (mm)
0-10	0.0	78	14	5.5	2.8	1.06	7.6	8.1	1.29	18	23
10-20	0.0	80	14	3.8	2.5	0.73	7.7	8.2	1.18	23	28
20-40	0.0	68	20	3.4	7.9	0.60	7.8	8.6	1.34	27	73
40-60	0.0	54	26	3.4	16.7	0.42	8.0	8.9	1.32	27	71
60-100	0.0	48	27	3.4	22.1	0.35	8.3	9.0	1.09	30	133